



IFW 3611

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On 2/20/07

By: Conrad O. Gardner

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Conrad O. Gardner
Application No.: 08/896,514

Group Art Unit: 3611
Examiner: Leslie D. Morris
Docket No.: 95-004 M
Date: February 19, 2007

For: EXTENDED RANGE MOTOR VEHICLE HAVING AMBIENT
POLLUTION PROCESSING

AMENDMENT

Sir:

Please cancel claims 34-36, 46-51, and 54-61 without prejudice.

Please add the following claims:

63. A hybrid motor vehicle comprising in combination:

an electric motor propulsion system which shifts to combustion engine propulsion for vehicle operation when cruise mode is reached;

said cruise mode occurring when rapidly shifting power and speed demands are not occurring for predetermined periods of time; and,

wherein said speed demands do not drop below 40 mph for predetermined time periods of 45 seconds.

64. A hybrid motor vehicle according to Claim 63 wherein said combustion engine provides electric power for storage in an electrical storage device in the non cruise mode before the cruise mode is reached.

65. The invention according to Claim 37 wherein said control means (30) comprises a logic control circuit.
66. The invention according to Claim 65 wherein said logic control circuit is responsive to a plurality of vehicle operating parameters including vehicle speed (32) and accelerator pedal information (160).
67. The invention according to Claim 37 wherein said battery (58) comprises a fast-charge discharge battery.
68. The invention according to Claim 37 wherein said battery supplying electric power to the motor comprises a battery supplying electric power to the motor (12) on throttle (60) demand.
69. The invention according to Claim 68 wherein quick depression of throttle (60) by the operator is utilized to overtake another vehicle while in the cruise mode.
70. The invention according to Claim 37 wherein said electric motor is utilized primarily when conditions for cruise mode are not satisfied.
71. The invention according to Claim 37 wherein said running state is cruise mode operation, said engine which continues to run during non cruise mode operation is utilized to transfer power output into electric power which is captured and consumed in fast charge-discharge battery (58).
72. The invention according to Claim 37 wherein instant powerful acceleration is provided by said motor (12) when said vehicle speed is dropping.

REMARKS

While Claim 63 specifies cruise mode operation utilizing combustion engine

propulsion primarily when rapidly shifting power and speed demands are not occurring as shown in the exemplary operation shown in the graph of Figure 2 and as stated at page 6, lines 14-15, other conditions e.g. such as grades and inclines would result in substantially the same overall function with the present system operating in substantially the same way staying in the cruise mode, reverting to electric power, Added dependent claim 64 specifies electric storage at times when not in the cruise mode, antecedent basis therefore being found at least at page 11, lines 8-10.

Added claim 65, calling for control means (30) shows antecedent support at least e.g. as seen in Figure 1 while Claim 66 is referenced at least at page 11, lines 11-12. Claim 65 dependent from Claim 37 specifies logic control circuitry utilized to determine utilization of engine power (22) to drive the vehicle or supply electric power to the battery (58).

Claim 66 dependent from Claim 65 specifies certain logic circuit input parameters and finds antecedent support at least at page 11, lines 10-12.

Claim 67 depends from Claim 37 referenced in Figure 1 references said battery (58) as consisting of a fast charge-discharge battery used in the present system..

Claim 68 dependent from Claim 37 describes powering the electric motor (12) on throttle (60) demand and finds antecedent support e.g. on page 6 of the specification at lines 27 and 28.

Claim 69 finds antecedent support at page 7, lines 19-22.

Claim 70 dependent from Claim 37 finds antecedent support at page 4, lines 8-10.


Claim 71 dependent from Claim 37 finds antecedent support at page 8 (paragraph 4) Lines 26-29.

Claim 72 dependent from Claim 37 is provided with antecedent support at least at page 10, lines 20-24.

CONCLUSION

All rejected claims have been cancelled and a dependent claim 52 indicated allowable has been rewritten in independent form as claim 63. Remaining claims 64-72 have been written in dependent form requiring no further search, antecedent basis for their support being provided, and as a consequence this application is now believed in condition for allowance which notice is respectfully solicited.

Respectfully submitted,


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FEES

A check for \$300 is enclosed for the addition of 1 independent claim plus 8 dependent claims.

\$100 one independent claim <Small entity>
\$25x8 dependent claims

No fee required